

LTE service is untrue. AT&T has already declared its intent to deploy LTE service starting in mid-2011, and is facing competitive pressures to accelerate its deployment from competitors with true 4G networks such as Verizon Wireless' LTE network and Sprint Nextel's WiMAX offering. With coverage already of 97% of the U.S. population today on its combined 2G and 3G network, AT&T could achieve this level of deployment by overlaying LTE coverage on its existing network to reach 97% of U.S. population. The process of overlaying equipment on existing cell sites merely involves installation of new equipment and saves on the cost and time required to build the physical infrastructure of a new site, not to mention time required to obtain necessary legal clearances.

PART C

Like many of its competitors, AT&T is facing congestion in some parts of its network – in some cities, particularly on its data network. More aggressively pursuing targeted, market-specific local solutions to its problems supported by smart engineering and management decisions offers a faster, more cost effective technical solution to AT&T's purported capacity constraints than acquiring another national network.

41. There are many economically viable and focused engineering solutions available to mobile network operators that can relieve substantial congestion on their networks. However, AT&T has not fully employed the full range of widely-available solutions to help address the significant growth in mobile data demand. Although AT&T claims that it has attempted to deploy some of these solutions on a limited basis, it fails to provide data to demonstrate their impact on its network performance or to explain why it cannot accelerate its use of these alternative technologies.

42. As the analysis conducted by Spectrum Management Consulting shows, in summary format in Figure 7 below, AT&T does not need to acquire T-Mobile to resolve its

claimed capacity and spectrum constraints. AT&T can meet its forecasted capacity demand using three levers, none of which require any T-Mobile assets. AT&T's demand forecast of data volume increasing by 8 to 10 times that of 2010 levels by 2015,³⁵ depicts an approximate six-fold increase in data traffic during the period from 2011-2015.³⁶ The execution of the three levers would increase AT&T's average downlink capacity in Mbps by over 600% by the year 2015, as modeled for the Los Angeles market, without the need to acquire additional spectrum or a significant national competitor. The resulting capacity gain represents only the downlink portion of traffic, widely regarded as 80% of total traffic,³⁷ hence providing ample gains to meet the demand forecast.

³⁵ Application at 4.

³⁶ *Id.*

³⁷ *Data Usage Forecast*, CISCO ARTICLES (Feb. 12, 2011), available at: <<http://www.ciscoarticles.com/3G-Wireless-Networks/Data-Usage-Forecast.html>>.

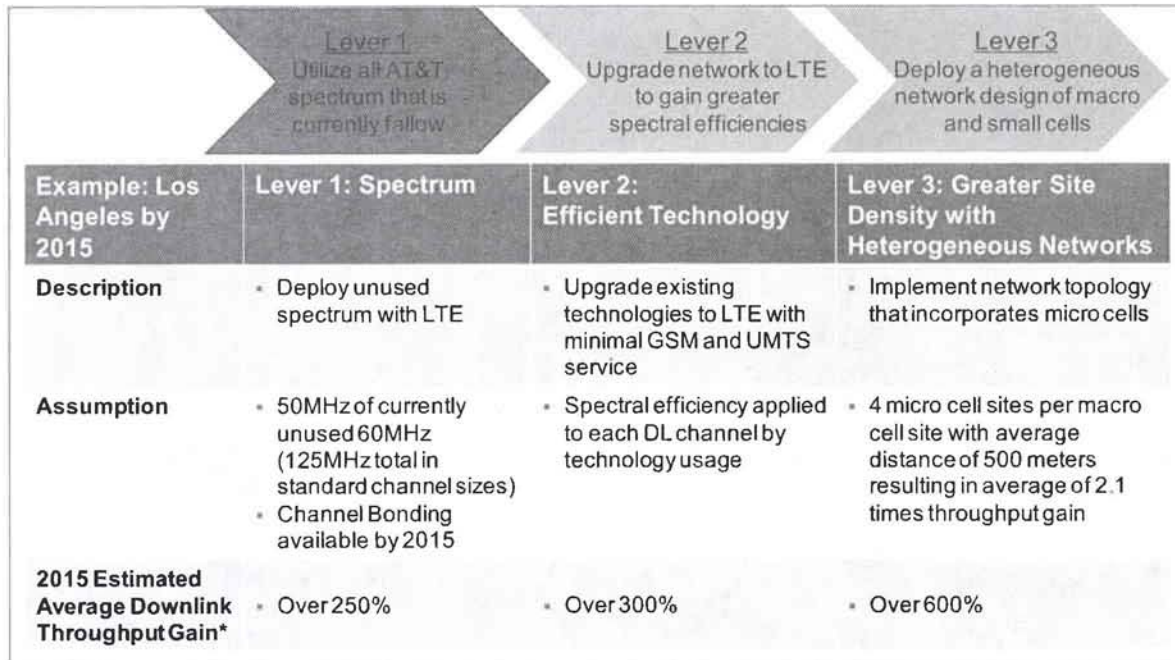


Figure 7: Calculated throughput gains in AT&T's Los Angeles market based on application of three widely recognized capacity-gain measures

* Downlink represents 80% of traffic mix / capacity demand

43. The remaining sub-sections of this Part C outline specific solutions that are available and the extent to which AT&T appears to have employed them.

X. DEPLOYMENT OF NEW CELL SITES, SPLITTING EXISTING SITES

44. One of the stated goals of AT&T's acquisition of T-Mobile is to split the traffic on one existing site across two sites. This traffic-splitting exercise can be done either by increasing the number of antennas and sectors on a single site, for example, from three sectors to six sectors, deploying a new site on an existing tower or building, or by constructing a new site altogether. For example, the benefit of increasing the number of sectors on a typical site from three to six can improve the throughput of a cell site, and therefore the effective coverage area,

by a factor of 1.7. While AT&T alludes to the ostensible difficulty of splitting a cell site,³⁸ AT&T provides no data to indicate why it has or has not been able to successfully pursue any of the cell split strategies in specific, constrained areas.

45. AT&T also claims it has installed thousands of cell sites, but its current capacity issues would indicate that it has failed to deploy sites aggressively enough to resolve the problems that AT&T's design choices and business model have created for itself. On the other hand, entities like Clearwire were able to add 10,000 sites in 2010.³⁹ AT&T, however, admits it has not been able to deploy its 2010 plan of record. A&T has not offered any clear evidence on *why* it was unable to meet its plan of record for network expansion. Also, the problems AT&T faces in the San Francisco Bay Area should not be held as a proxy to illustrate AT&T's claims of zoning difficulties, because problems in the dense, topographically diverse terrain of San Francisco are hardly typical of national site builds.⁴⁰

46. If needed, AT&T can achieve the same cell site splits it claims would result from a T-Mobile takeover by entering into a number of arrangements short of a takeover of one or more of its competitors, such as a tower-sharing agreement with T-Mobile or any other mobile network operator, or a lease agreement with one of the tower companies. Such agreements would allow AT&T to gain immediate access to thousands of sites, including both traditional towers and rooftop locations prevalent in dense, urban areas. AT&T's claim that it is unable to access these towers lacks any hard data and fails to account for the industry's vast tower

³⁸ Hogg Decl. at ¶ 69.

³⁹ Dan Meyer, *Clearwire posts strong Q4 wholesale growth, cost conservation remains intact*, RCR WIRELESS (Feb. 17, 2011), available at: <<http://www.rcrwireless.com/ARTICLE/20110217/CARRIERS/110219933/clearwire-posts-strong-q4-wholesale-growth-cost-conservation-remains>>.

⁴⁰ Hogg Decl. at ¶ 70.

inventory. Even if a tower is fully loaded, measures can be undertaken to reinforce it and open additional space on it. Total available tower capacity in the U.S. is estimated to be over 250,000⁴¹ and AT&T is estimated to utilize less than 25% of available sites. Spending \$39 billion to gain access to T-Mobile sites is a very high cost to pay for tower capacity. Even if some fraction of T-Mobile's cell site locations were uniquely matched in AT&T's areas of need, a tower-sharing arrangement with T-Mobile in congested areas such as San Francisco could address site-location issues far less intrusively and far less disruptively to competition than the proposed acquisition.

XI. DEPLOYMENT OF SMALLER CELL-SITES TO GREATLY INCREASE SPECTRUM RE-USE AND AVAILABLE CAPACITY

47. Although AT&T's Application makes references to the evolving cellular network architecture, especially the advent of heterogeneous networks, it does not explain why it is not sufficient for AT&T to evolve its network beyond today's macro cell based architecture. It is unclear whether AT&T has been unusually slow to adopt these new features on its network and is thus experiencing what it claims to be a capacity constraint.⁴² The goal of LTE is to not only improve spectral efficiency through new antenna technologies such as Multiple Input Multiple Output ("MIMO") and beamforming, as well as higher modulation and coding schemes, but also to improve the performance of wireless networks by changing the network topology. Thus, LTE aims to improve the spectral efficiency per unit area covered. Using a mix of macro cells, micro cells with smaller network footprint (sometimes called pico / relay cells), and femto cells is an

⁴¹ *Wireless Quick Facts*, CTIA, available at: <<http://www.ctia.org/advocacy/research/index.cfm/aid/10323>>.

⁴² Application at 1.

effective way to relieve capacity constraints.⁴³ These smaller cell sites are often complemented by other means of providing additional spectrum re-use and enhanced capacity in targeted areas. DAS and smaller, compact radio technologies such as Alcatel Lucent's lightRadio⁴⁴ are also very cost-effective ways to reduce capacity constraints on carriers' networks. These techniques also have an added advantage of providing better indoor coverage when compared to macro cell-sites.

48. These technologies and innovations are the fundamental philosophies and operating principles of the mobile network industry itself. The ability to increase the reuse of spectrum compared to the more inefficient broadcast approaches used for decades, leads to more capacity on a per area basis. Also having cell sites closer to users allows the system to use a higher modulation and coding scheme, improving the spectral efficiency of the network on a per channel basis. The cellular industry is defining how these heterogeneous networks will work by focusing on advanced techniques for managing and controlling interference in future releases of mobile communications standards. These standards are expected to be defined by 2012 in LTE Release 10, with certified commercial products ready for implementation the year after. *These improvements in cellular technology and standards are expected to be realized long before AT&T has claimed it will begin realizing improvements from the T-Mobile acquisition.*⁴⁵

49. Moreover, heterogeneous networks not only represent an important tool to increase network capacity, but also are likely to prove essential to achieving a consistent end-

⁴³ While LTE has been designed for supporting Heterogeneous Networks, UMTS/HSPA+ technologies also support these techniques to improve spectral efficiency and coverage of a network

⁴⁴ See Features, *lightRadio*, Alcatel-Lucent, available at: <www.alcatel-lucent.com/lightradio> (last visited May 28, 2011).

⁴⁵ Based on conservative estimates of the complete FCC and DOJ reviews of 12 months plus 9 months to begin site integration synergies.

user experience. If AT&T does not embrace the use of heterogeneous networks, then its users will continue to experience variable throughput as they are mobile. By implementing small cells within the network to complement the macro network, the user experience will become more uniform. Analysis performed by Qualcomm⁴⁶ in a mixed deployment of macro cells and pico / relay cells has demonstrated that throughput per user improves 2.5 times on both uplink and downlink for median cases while it improves 2.1 times on downlink and 1.5 times on uplink at the edge of the cell site. These improvements were made possible because some users experienced higher modulations by being closer to the smaller cells, while fewer users were on the macro network and the devices being served by the small cells are likely to be at lower power levels thereby decreasing the level of interference to others.

50. Finally, AT&T's focus on increasing its macro cell density through the acquisition is ill-conceived and against the growing trend of utilizing small cell site-based network architectures. AT&T claims that the cell splits resulting from the proposed transaction will effectively double the amount of network traffic that can be carried using existing spectrum in the areas served by those cell sites. In making this claim, AT&T ignores the diminishing returns resulting from continued cell splitting of macro cell sites, a cellular architecture inherently non-optimal for serving areas of high traffic density.⁴⁷ In the most congested markets, where capacity is needed most, the addition of new macro cells will not result in a doubling of traffic capacity unless perfect conditions exist to manage the interference among nearby cells.

⁴⁶ LTE Advanced: Heterogeneous Networks, Qualcomm, *available at*: <http://www.qualcomm.com/videos/lte-advanced-heterogeneous-networks>.

⁴⁷ Presentation by Kris Rinne, *Building the Nation's Most Advanced Mobile Broadband Experience*, AT&T Industry Analyst Conference (May 11, 2011), *available at*: http://www.att.com/Common/about_us/downloads/building_the_nations_most_advanced_mobile_broadband_experience.pdf ("Rinne Presentation").

The gains in capacity by increasing the density of cell sites are offset by losses due to interference and operational challenges when cell radii decrease below 300-400 meters.⁴⁸

Average cell radius in an urban environment is approximately 800 meters and decreasing with the growth and consolidation of mobile networks.⁴⁹ Without access to detailed capacity plans for the integrated network, the proposed “effective doubling” of capacity AT&T asserts may be more wishful thinking than reality.⁵⁰

XII. INCREASING CAPACITY AND COVERAGE USING RADIO ACCESS NETWORK (RAN) SHARING

51. AT&T can achieve its stated goal of dramatically increasing site density and traffic capacity through a multi-operator Radio Access Network (“RAN”) sharing arrangement with one or more network operators, including T-Mobile. RAN sharing is technically feasible and has had demonstrated success in international markets. ABI Research’s report on Multi-Operator RAN Sharing finds that the worldwide combined OPEX and CAPEX savings from active infrastructure sharing could amount to as much as \$60 billion over the next five year period.⁵¹ The study finds that operators could enjoy at least 40% cost savings in addition to those available from passive site sharing. Some examples of successful RAN sharing are:

- Orange and T-Mobile have created a joint venture named Everything Everywhere to enable RAN sharing in the UK market; and
- Tele2 and Telenor have also implemented RAN sharing for LTE in Sweden.

52. RAN sharing can be either passive or active. Passive sharing generally includes shared use of the site structure, *i.e.*, the tower or rooftop, cell site cabinet, power, and HVAC

⁴⁸ SMC Analysis based on study of dense urban cellular networks.

⁴⁹ *Id.*

⁵⁰ Application at 34.

⁵¹ See ABI Research Report on Multi-Operator RAN Sharing.

environmental. By comparison, active sharing achieves a tighter integration of cell site assets through shared use of the antenna system, base station equipment, and backhaul connection. In essence an active RAN sharing arrangement is similar to AT&T's proposed use of existing T-Mobile cell sites but without the anti-competitive harms resulting from the merger. Specific advantages of RAN sharing include:

- Immediately accessing existing sites for expanding coverage and/or capacity;
- Selectively accessing sites and introducing additional network capacity based on prioritized needs; and
- Achieving similar CAPEX and OPEX advantages as the proposed network integration.⁵²

XIII. OFFLOADING ADDITIONAL DATA USAGE FROM THE CELLULAR NETWORK TO ALTERNATIVE NETWORKS USING WI-FI

53. With its purchase of Wayport, AT&T increased its dominant ownership of public Wi-Fi hotspots. AT&T's Application claims ownership of 24,000 Wi-Fi hotspots. This total, however, is just one hotspot for every 4,000 AT&T subscribers, meaning that an extremely small percentage of AT&T's data traffic is likely being carried via the highly-efficient and low-cost Wi-Fi network.

54. While AT&T has trumpeted the creation of Wi-Fi "Hot Zones" in areas such as New York's Times Square and San Francisco's Embarcadero shopping complex, it has been slow to make such capabilities and capacity broadly available. Densely-used areas such as Washington, D.C.'s National Mall and New Orleans' French Quarter still lack any substantial Wi-Fi coverage.

⁵² *Id.*

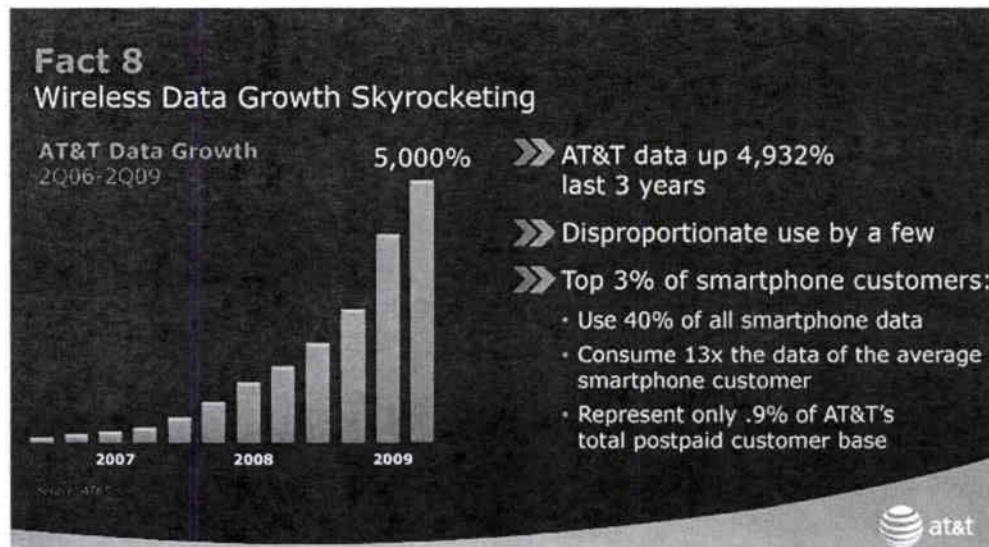


Figure 8: Slide from AT&T explaining how a small number of users on their network generate most data traffic on their network

55. The CTIA-IT September 2009 Keynote Address by AT&T highlighted the disproportionate impact of a few users on the cellular network. The top 3% of smartphone users generate 40% of all smartphone data.⁵³ These users are generating 13 times the data of an average smartphone user and represent only 0.9% of all users, voice and data combined. There are a number of techniques that can be applied to limit or create a fairer environment, including data usage policy management, improved fairness algorithms and pricing differentials. Also, offloading these high data users onto Wi-Fi networks would benefit all the users on the mobile network and would also create a better experience for the high data users.

⁵³ Mark Sullivan, *AT&T Wireless CEO Hints at 'Managing' iPhone Data Usage*, COMPUTER WORLD (Oct. 8, 2009), available at: <http://www.computerworld.com/s/article/9139151/AT_T_Wireless_CEO_Hints_at_Managing_iPhone_Data_Usage>.

XIV. USE OF IN-BUILDING WIRELESS SYSTEMS TO ENABLE IMPROVED COVERAGE AND OFFLOAD CAPACITY DEMANDS

56. In-building Wireless Systems, primarily enabled by Distributed Antenna Systems, have been widely available for more than eight years and are widely deployed in facilities ranging from stadiums and college campuses to airports and train stations. In areas of dense usage, these solutions are an effective and efficient means of offloading demand from the macro cellular network. AT&T's application does mention that it has "deployed indoor and outdoor distributed antenna systems ('DAS')...to offload traffic from AT&T's mobile broadband network and relieve congestion,"⁵⁴ but it goes no further in discussing the extent to which these systems have been deployed, or if further deployments are planned.

XV. USING CUSTOMERS' INFRASTRUCTURE TO INCREASE AVAILABLE CAPACITY AND OFFLOAD TRAFFIC FROM CARRIER'S NETWORK

57. Much of a user's total data traffic is generated in areas where alternatives exist to using AT&T network to carry that data traffic. Mobile users generate much of their data traffic from within the home or office. According to a recent Cisco study⁵⁵, the combined percentage of time, and thereby traffic, the average user devotes to using mobile Internet at home and in the office is 65%. In other words, just 35% of the total traffic generated by a user is "on the move."

⁵⁴ Application at 27.

⁵⁵ Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update, 2010–2015 at 10 (Feb. 1, 2011), *available at*: http://www.cisco.com/en/US/solutions/collateral/ns341/ns525/ns537/ns705/ns827/white_paper_c11-520862.pdf ("Global Mobile Data Traffic Forecast Update"). While Cisco tends to be more aggressive with its forecasts of data growth, this forecast nonetheless illustrates that at home usage comprises a significant portion of a user's overall usage. Further, while the estimate is based on time, the data usage share is proportional to time as the types of applications a given user would utilize at home are no less bandwidth intensive than applications utilized while "on the move".

This data suggests that by utilizing techniques to “offload” user traffic to alternative technologies, enormous gains can be achieved in available network capacity and quality.

A. Home-Based Wi-Fi Networks

58. The use of Wi-Fi access points in the homes is widespread. These networks provide an efficient and secure method of traffic offload so long as users activate the Wi-Fi connection feature of their data device (*i.e.*, configure and associate with their home network). AT&T could implement network and device management features to take more advantage of home-based Wi-Fi networks.

B. Femto Cells (Personal Home-Based and Enterprise-Based Cell Sites)

59. In its filing, AT&T recognizes the benefits that very small cell architectures, including femto cells, can produce. Femto cells connect to an existing broadband connection such as DSL to improve network performance in home-based or enterprise-based environments. Femto cells reuse existing spectrum to carry both voice and data traffic. While AT&T recognizes the potential benefits of femto cells, it oddly claims that “these are designed to address in-home coverage issues more so than to increase network capacity,”⁵⁶ despite generally understood benefits of femto cells for capacity relief.⁵⁷ AT&T’s decision to categorize femto cells as a coverage solution is short sighted and is artificially limiting adoption. Instead, AT&T should substantially ramp up its efforts to deploy femto cells to meet both coverage and capacity demands.

⁵⁶ Hogg Decl. at ¶ 73.

⁵⁷ The Femto Forum, an industry organization comprised of mobile operators, telecom hardware and software vendors, and content providers, whose mission is to advance the development and adoption of small cells via femtocells, claims that a femtocell “enables capacity equivalent to a full 3G network sector at very low transmit powers.” *See* Femto Forum website, *available at*: <<http://www.femtoforum.org>>.

60. The potential benefit of femto cells to offload data traffic generated by users within the home or office is substantial. Cisco has estimated that through 2015, more than 20% of smartphone generated traffic can be offloaded through femto cells⁵⁸ and that further growth of this offloading is limited only by the availability of a broadband connection in the home.

XVI. USING NEW, ADVANCED NETWORK, AND TECHNOLOGICAL FEATURES

61. Wireless carriers have many new technologies available that can help with making their network more efficient. These technologies are very cost-effective alternatives to buying additional spectrum. However, carriers have to be proactive in upgrading their network infrastructure to support these technologies and willing to invest in their network to keep it at the forefront of technological and standards evolution. AT&T can deploy Smart Antennas / MIMO carriers and implement increased sectorization (six-sector cell sites) to increase capacity in its existing network.

62. AT&T can also ensure that both its network and devices are more up-to-date in terms of the technology versions they support. As mentioned earlier, AT&T's flagship smartphone device, the iPhone 4, only supports HSPA 7.2 and does not support HSPA+. And, as the chart below suggests, HSPA+ is a more spectrally efficient technology than legacy GSM and UMTS technologies, and its increased use would improve the overall efficiency of the AT&T network if more of AT&T's devices were compatible with the HSPA+ standard.

⁵⁸ Global Mobile Data Traffic Forecast Update at 11.

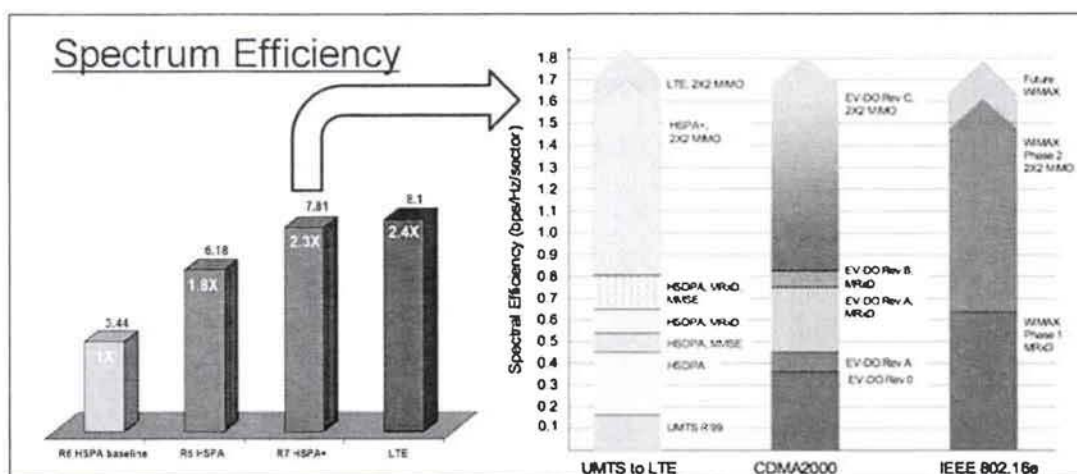


Figure 9: Spectrum efficiency of various 3G and 4G technologies.

63. There are also technologies in the LTE standards roadmap that will become available for AT&T to use well before demand on its yet-to-be-deployed LTE network increases. Carrier aggregation (also known as “channel bonding”) and related spectrum bonding techniques will be available in LTE Release 10, enabling AT&T to deploy LTE in additional spectrum bands including the 700 MHz spectrum that it has agreed to purchase from Qualcomm, subject to FCC approval.

64. The Application also does not account for the evolution of capabilities that are becoming available in LTE Advanced, also known as Release 10 or LTE-A. LTE-A will become available shortly after AT&T’s LTE network launch. These techniques include higher-order MIMO and carrier aggregation across multiple component carriers, which will further improve the spectral efficiency per link. With Release 10 and through the use of higher order MIMO configurations, AT&T could realize on the order of a *50% improvement* in spectral efficiency (e.g., a spectral efficiency of 2.4 bps/Hz for Release 10 using 2x2 MIMO, versus a spectral

efficiency of 1.6 bps/Hz for Release 8). This increase in spectral efficiency is nearly equivalent to the increase that AT&T will realize in upgrading from HSPA+ to LTE.

65. There are a number of features included in LTE Advanced that will improve overall network efficiency. The technology components being identified as Study Items include:

- MIMO up to 8x8 in DL and 4x4 in Uplink and enhanced beamforming for Downlink and Single user MIMO for UL;
- Coordinated multiple point transmission and reception (“CoMP”) to improve performance on the cell edge;
- Relay nodes in band or outer band;
- Carrier aggregation (or channel bonding) (Release 10);
- Autonomous component carrier selection for uncoordinated small cell deployment; and
- New reference signal for closed-loop spatial multiplexing.

66. AT&T is also already leading the way in 3GPP Working Items in RAN 4 with regards to carrier aggregation,⁵⁹ presumably to support its planned use of the spectrum it expects to gain from its acquisition of Qualcomm’s spectrum in the 700 MHz band. These working items will become part of the standard and enable AT&T to aggregate larger channels in separate bands and gain the performance as if they were all one continuous channel. AT&T will effectively create additional LTE capacity, independent of the proposed T-Mobile acquisition.

XVII. INCREASE AVAILABLE BANDWIDTH IN BACKHAUL/TRANSMISSION NETWORK

67. The mobile network consists of many parts and hence contains more than one point for potential congestion. While the Application has focused primarily on the challenges faced in its air interface or RAN, the transmission network connecting the cell sites to its core

⁵⁹ See *Active 3GPP Work Items for group: R4*, 3GPP, available at: <http://www.3gpp.org/ftp/Specs/html-info/TSG-WG--R4--wis.htm>. Currently more than 18 Work Items are related to carrier aggregation for LTE Release 10.

network and the Internet is just as important. Often, mobile network operators are able to boost their network performance simply by upgrading the capacity available in the backhaul network.⁶⁰

AT&T, with the vast transmission network assets it owns, is capable of adding more capacity to its cellular backhaul network but has not taken proactive steps in this direction. Although it is unclear how many of AT&T's cell sites have today, or will have in the future, enhanced Ethernet connections, AT&T plans to carry only two thirds of its traffic on enhanced Ethernet by the end of 2011.⁶¹

XVIII. CONCLUSION

68. The conclusion of my analysis is that the Commission should reject AT&T's argument that the proposed integration of AT&T's network with that of T-Mobile is the best and only cure for AT&T's claimed capacity crunch. AT&T claims that significant benefits such as access to new sites otherwise not available to it, more efficient use of available spectrum, increased network coverage, and enhanced ability to offer 4G services are impossible to substantiate given the limited data and analysis in AT&T's Application. My analysis and

⁶⁰ AT&T, for example, indicates in the Application that they have deployed HSPA+ to all of its UMTS sites. See Hogg Decl. at ¶ 22. However, AT&T's website acknowledges that "4G speeds require a 4G device and are delivered when HSPA+ technology is combined with enhanced backhaul. 4G speeds are available in select cities with availability increasing with ongoing backhaul deployment." See Answer Center, *Just how fast is AT&T 4G?*, AT&T Wireless, available at: <http://www.wireless.att.com/answer-center/main.jsp?t=solutionTab&ft=&ps=solutionPanels&locale=&_dyncharset=UTF-8&solutionId=KB115947> (last visited May 27, 2011). AT&T's website also indicates that "AT&T is constantly deploying upgraded backhaul to deliver 4G speeds. By the end of 2011, we expect approximately 2/3 of our mobile broadband traffic to be delivered over our enhanced network." See Answer Center, *Where and when will 4G from AT&T be available to me?*, AT&T Wireless, available at: <http://www.wireless.att.com/answer-center/main.jsp?t=solutionTab&ft=&ps=solutionPanels&locale=&_dyncharset=UTF-8&solutionId=KB115948> (last visited May 27, 2011). AT&T could increase the usability and performance of their HSPA+ network by expediting the roll-out of their enhanced backhaul network.

⁶¹ Rinne Presentation at 19.

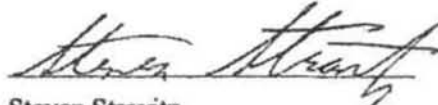
REDACTED - FOR PUBLIC INSPECTION

experience suggests that these claims are highly unlikely to occur. Yet even if I were to take AT&T's claims at face value, these supposed benefits will be short term, one-time gains that will not have a material impact on AT&T's preexisting ability to meet its own capacity needs over the long term.

69. AT&T should pursue new technologies and strategies to use its vast spectrum holdings more efficiently, and thus manage the growing traffic on its network, just as its competitors do. If the proposed acquisition of T-Mobile were authorized, it would only further delay AT&T's implementation of efficiency measures and encourage AT&T to continue to use conventional technology, applied with diminishing returns, to address rapidly increasing capacity needs. Approving the merger will perpetuate the inefficient use of spectrum that AT&T has been pursuing by choosing to keep its subscribers on older technologies and retaining unused spectrum.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Executed on May 19, 2011.



Steven Stravitz
CEO and Managing Director
Spectrum Management Consulting
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Suite 160
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REDACTED – FOR PUBLIC INSPECTION

ATTACHMENT H

DECLARATION OF SCOTT KALINOSKI

WHOLESALSALES DIRECTOR

SPRINT NEXTEL CORPORATION

DECLARATION OF SCOTT KALINOSKI

I, Scott Kalinoski, hereby declare as follows:

I. BIOGRAPHICAL INFORMATION

1. My name is Scott Kalinoski and I currently hold the position of Wholesale Sales Director at Sprint Nextel Corporation (“Sprint”), managing sales and support to customers from the cable segment of the communications industry. I am responsible for marketing and selling Sprint’s wireless and wireline network services to cable operators, enabling these operators to repackage these services and sell them to their own customer base. I have been at Sprint for over fifteen years, holding various operations and sales positions primarily within Sprint’s Wholesale organization. Prior to my time at Sprint, I worked at Cincinnati Bell Telephone as a Network Planner. I earned a Bachelor of Science degree in electrical engineering from Purdue University and a Masters of Business Administration degree from the University of Cincinnati.

II. COX COMMUNICATIONS IS A REGIONAL MOBILE VIRTUAL NETWORK OPERATOR, RELYING EXCLUSIVELY ON SPRINT’S 3G NETWORK

2. In April 2008, Sprint and Cox Communications (“Cox”), the nation’s third-largest cable operator, entered into a wholesale agreement for the provision of mobile wireless service. Pursuant to this agreement, Cox has become a “Mobile Virtual Network Operator” (“MVNO”) in areas within its cable service footprint, relying on Sprint’s 3G Code Division Multiple Access (“CDMA”) network. As an MVNO, Cox purchases wireless capacity from Sprint and resells mobile wireless service to customers under its own brand, performing all marketing, billing, collections, and customer service for those subscribers. Cox launched its mobile wireless offerings in November 2010, and today it provides this service to a number of markets within its

cable footprint. Cox currently has no facilities-based wireless operations, and is providing mobile wireless service exclusively as an MVNO under its agreement with Sprint. In addition to its MVNO operations, Cox holds licenses in certain markets using its licensed Advanced Wireless Services (“AWS”) spectrum (1710-1755 MHz/2110-2155 MHz). On May 24, 2011, Cox announced publicly that it was terminating an effort to build out this AWS spectrum.¹ According to Cox, it made this decision because the MVNO model provides a more cost-efficient means of rapidly delivering its wireless offerings to additional markets.² While Cox holds Lower 700 MHz band licenses in certain markets, it is my understanding that it has not built out this spectrum. Thus, at least for the near term and perhaps much longer, Cox will serve its wireless customers exclusively as an MVNO utilizing Sprint’s 3G mobile network.

3. As an MVNO utilizing Sprint’s 3G network, Cox in my view is not a direct competitor to Sprint. Cox’s wireless business is dependent on Sprint’s 3G network, and Sprint receives additional revenue for each additional subscriber gained by Cox. Thus, Cox has only a limited ability to compete against Sprint.³ In addition, as indicated above, Cox offers MVNO

¹ See *Cox Wireless to abandon 3G network build in favor of Sprint Nextel wholesale agreement*, RCR WIRELESS NEWS (May 24, 2011) available at: <<http://www.rcrwireless.com/article/20110524/CARRIERS/110529966/-1/cox-wireless-to-abandon-3g-network-build-in-favor-of-sprint-nextel>>.

² *Id.*

³ In its Commercial Mobile Radio Service (“CMRS”) competition reports, the Federal Communications Commission (“Commission”) has stated that “because MVNOs purchase their mobile wireless services in wholesale contracts from facilities-based providers, the ability of MVNOs to compete against their host facilities-based provider is limited.” *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services*, Fourteenth Report, 25 FCC Rcd 11407, ¶ 32 (2010). In these CMRS competition reports, the Commission does not count MVNOs as separate competitors from their underlying facilities-based providers in its analysis of market structure. *Id.*

REDACTED - FOR PUBLIC INSPECTION

service to the public only within its cable service footprint, which passes approximately ten percent of all U.S. households. Thus, Cox is only a regional provider of mobile wireless service, rather than a national provider.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on May 28, 2011

Scott Kalinoski
Scott Kalinoski

REDACTED – FOR PUBLIC INSPECTION

ATTACHMENT I

DECLARATION OF GREGORY D. BLOCK

TREASURER

SPRINT NEXTEL CORPORATION

DECLARATION OF GREGORY D. BLOCK

I, Gregory D. Block, declare as follows:

1. I am Gregory D. Block, Treasurer for Sprint Nextel Corporation ("Sprint").
2. I make this declaration in support of Sprint's Petition to Deny the Applications of AT&T Inc. and Deutsche Telekom AG for Consent to Assign or Transfer Control of Licenses and Authorizations.
3. There are several advantages to funding research and development and capital expenditures through internal funds rather than external sources, such as loans and bond offerings. Sprint is far more constrained than AT&T and Verizon in its ability to use internal funds because of its lower relative cash-flow generation.
4. Since AT&T and Verizon generate a disproportionately greater amount of internal funds than Sprint, Sprint has to rely more on external financing for capital expenditures and innovation investments. Currently, Sprint has total borrowings of **[begin confidential information]** [REDACTED] **[end confidential information]**. Sprint's greater reliance on external financing means that Sprint has lower credit ratings and pays higher interest rates on its debt than AT&T and Verizon. Currently, the Moody's credit rating for Sprint is Ba3, compared to A2 for AT&T and A3 for Verizon. In addition, Sprint's ratio of earnings before interest, taxes, depreciation, and amortization ("EBITDA") to interest expense is lower than AT&T's and Verizon's. Within the capital markets, this is considered to indicate that Sprint represents a higher credit risk than AT&T or Verizon. Sprint's EBITDA-to-interest-expense ratio is 4.0, whereas AT&T's is 13.0 and Verizon's is 12.3. As a result, Sprint has higher relative borrowing costs and a more limited borrowing capacity than AT&T and Verizon.

5. Given Sprint's lower credit rating, the company must turn to the high-yield market for its debt offerings. AT&T and Verizon, on the other hand, can turn to the investment-grade debt markets. Because Sprint borrows in the high-yield market, its borrowing costs are higher than AT&T's and Verizon's.

6. The high-yield markets are much more susceptible to interruption compared to investment-grade markets, especially during times of crisis when companies need the most support. During the financial crisis of 2008, while the volume of new bond issuances came down, the investment-grade market was rarely interrupted. On the other hand, both the new issuance volume and the active days of issuance dropped significantly for the high-yield bond market. For instance, there were only 77 days of market activity for issuing new high-yield bonds.

7. If AT&T acquires T-Mobile, and Sprint's costs increase and market share decreases, the above-described financing disadvantages would be exacerbated. A lower market share would likely lead to decreased revenues and a decline in our internal funds for investment. This would increase Sprint's reliance on external capital sources. A greater reliance on external funding would increase Sprint's borrowing costs, expose it to deeper market volatility, and reduce its ability to finance capital expenditures and innovations to maintain its national network. Sprint would also have to hold more cash as reserves to service debt and to weather market volatility. If Sprint had been able to hold the same cash and cash equivalents as a percentage of short-term borrowings as AT&T and Verizon, it would have held \$2.5 billion less cash and cash equivalents for 2008, \$3.4 billion less for 2009, and \$3.7 billion less for 2010.

REDACTED - FOR PUBLIC INSPECTION

I declare under penalty of perjury that the foregoing is true and correct.

Executed on May 27, 2011

A handwritten signature in cursive script, appearing to read "Gregory D. Bleck", is written over a horizontal line.

Gregory D. Bleck

Treasurer

Sprint Nextel Corporation